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60/975 7590 05/23/2008 CAMPBELL STEPHENSON LLP 11401 CENTURY OAKS TERRACE BLDG. H, SUITE 250 AUSTIN, TX 78758				
			EXAMINER JOO, JOSHUA	
			ART UNIT 2154	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/033,146

**Applicant(s)**

CHEN ET AL.

**Examiner**

JOSHUA JOO

**Art Unit**

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**Period for Reply** -- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-23, 25-34, 36-45, 47-55, 58 and 60-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-23, 25-34, 36-45, 47-55, 58, 60-68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/6/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Detailed Action***

1. This Office action is in response to communication dated 02/06/2008.  
Claims 1-3, 6-23, 25-34, 36-45, 47-55, 58, 60-68 are presented for examination.

**Continued Examination Under 37 CFR 1.114**

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/06/2008 has been entered.

**Response to Arguments**

3. Applicant's arguments with respect to claims 1-3, 6-23, 25-34, 36-45, 47-55, 58, 60-68 have been considered but are moot in view of the new ground(s) of rejection. Applicant argued that:
  4. (1) Applicants have amended independent claims 1, 16, 19, 20-23, 33, 34, 44, 45, 55, and 58 to reflect that the web browser does not need to request any information from the claimed web server in order to have an asynchronous message pushed to the web browser. This is unlike Gupta, which requires a priori knowledge about what specific information is required and requires that the information be specifically requested.
5. In response, it is respectfully noted that there are no amendments made to claims 23 and 34, and the claim identifiers are listed as "Previously Presented". Applicant's amendment fails to comply with 35 U.S.C. 112 first paragraph as the amendments are not described in the specification. Applicant's amendment also fail to comply with 35 U.S.C. 112 second paragraph as the limitations appear to be negative limitations in which the limitations do not have basis in the original specification.

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6. Examiner also respectfully disagrees that amended feature of “the wait request is other than request for information from the web server” is not taught by Gupta. Gupta teaches of

“When the client process is ready to receive messages, it registers itself with the notification server 30. The registration information required by the notification 30 will comprise the identity of the client process 110 together with a receiving address identifier.” (col. 5, lines 49-54);

“The notification server 30 maintains an updates a databank of clients 110-118 that are on-line” (col. 6, lines 11-12); and

“It is, however, possible for the notification to store notifications intended for clients that are not currently on-line. The notification server 30 may send some or all of these messages to the end user through other means such as email, postal mail or facsimile. Alternatively, it may deliver some or all of these messages to the clients 110-118 when they next register.” (col. 7, lines 39-45).

7. According to the above sections, Gupta teaches of a client process registering, which corresponds to the claimed providing wait request, with a server. The registering is to indicate the client's availability to receive messages as a message intended for the client is delivered when the client is registered, i.e. online. Therefore, the registration is a request to indicate availability of the client, which is a request other than request for information.

Newly cited reference, Shaughnessy et al. US Patent #5,928,325, also teaches of sending asynchronous messages that are not specifically requested by client (col. 6, lines 36-41, 50-55.

Communications including email or voice mail), wherein the messages are sent to the client based on registration status of the client. (col. 5, lines 10-14, 17-21).

#### **Information Disclosure Statement**

8. The information disclosure statement (IDS) submitted 2/6/2008 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### **Claim Objections**

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9. Claim 33 is objected to because of the following informalities:

- i) Regarding claim 33, the limitation of "computer-readable medium for storing the controlling instructions, the pushing instructions" is repeated in the claim. There is also a period preceding the limitation, and the claim does not end with a period. See MPEP 608.01(m)

Appropriate correction is required.

#### **Claim Rejections - 35 USC § 101**

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 45, 47-55, 58, 59-67 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

12. Regarding claims 45 and 55, Applicant is seeking to patent a system comprising of means for performing functions. In Applicant's specification dated 10/27/2001, Applicant intends on implementing the present invention by software (page 21, lines 23-27). Therefore, the means may be intended as software, and a software system does not meet one of the four categories of invention and is not statutory. Specifically, software is not a series of steps or acts and thus is not a process. Software is not a physical article or object and as such is not a machine or manufacture. Software is not a combination of substances and therefore not a composition of matter.

13. Regarding claim 55, Applicant is seeking to patent a system comprising of modules. Modules are only software, and in Applicant's specification dated 10/27/2001, Applicant intends on implementing the present invention by software (page 21, lines 23-27). The claimed system is directed to software, and software does not meet one of the four categories of invention and is not statutory.

#### **Claim Rejections - 35 USC § 112**

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14. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

15. Claims 1-3, 6-23, 25-34, 36-45, 47-55, 58, 60-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

16. Regarding claims 1, 16, 19, 20-22, 33, 44, 45, 55, and 58, the amended feature of "the wait request is other than a request for information from the web server" is not supported by Applicant's specification. Applicant's specification dated 10/27/2001 describes wait request by disclosing of "to send the *wait request* 210 to web server 188 as part of a normal HTTP request" (page 12, lines 9-11), "*Wait request* 210 may correspond to a URL as shown in FIG. 5:" (page 16, lines 13-15), "Web server 188 provides information provided in *wait request* 210, such as target parameter 214 and Session\_ID parameter 216..." (page 17, lines 12-13); "Placing the Request ID into wait map 570 "registers" web browser client 104A, which is uniquely associated with the Request ID, as a client that is available to receive an asynchronous message" (page 19, lines 12-14); and "To enable web browser client 104A to continue to receive asynchronous messages, Java applet 116 sends another *wait request*." (page 20, lines 29-30). However, the specification does not describe that the wait request is other than a request for information.

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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18. Claims 1-3, 6-23, 25-34, 36-45, 47-55, 58, 60-68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

19. Regarding claims 1, 16, 19, 20-22, 33, 44, 45, 55, and 58, the limitations of "the incoming event is an event other than a request for information" and "the wait request is other than request for information from the web server" are negative limitations. Regarding claim 23, the limitation of "the incoming event is an event other than a request for information from the web server" is a negative limitation. Regarding negative limitations, MPEP 2173.05(i) states,

Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See *In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. The court observed that the limitation "R is an alkenyl radical other than 2-butenyl and 2,4-pentadienyl" was a negative limitation that rendered the claim indefinite because it was an attempt to claim the invention by excluding what the inventors did not invent rather than distinctly and particularly pointing out what they did invent. *In re Schechter*, 205 F.2d 185, 98 USPQ 144 (CCPA 1953).

20. Firstly, there is no basis for the limitations in the original disclosure to support the limitations. Secondly, the claims do not distinctly and particularly point out what the applicant regards as his/her invention, and by using phrases such as "other than", it appears to be an attempt to claim the invention by excluding what the inventors did not invent or is not inventing.

### **Claim Rejections - 35 USC § 102**

21. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

22. Claim 22 is rejected under 35 U.S.C. 102(e) as being anticipated by Gupta et al, US Patent #6,763,384 (Gupta hereinafter).

23. As per claim 22, Gupta teaches the invention as claimed including a method for communicating, Gupta's teachings comprising:

controlling a user interface presented by a web browser comprising (col. 5, lines 35-39. Web browser.);

causing the web browser to provide a wait request to a web server, wherein the wait request is associated with the web browser and a target from which an asynchronous message originates, and the wait request is other than a request for information from the web server (col. 5, lines 49-56. Client process registers with the server. Fig. 2A. Client process 110 included in browser 100. col. 8, lines 31-36. Inform server of event. Send message based on registered client process and event sent from one of the application servers.);

generating the asynchronous message, the asynchronous message identifying the web browser as a recipient of the asynchronous message, the generating being performed by the target (col. 6, lines 54-61. Application server passes message to notification server. The message is of interest to the client. It is essential to generate the message.);

providing the asynchronous message to the web server (col. 6, lines 54-61. Application server passes message to notification server.); and

causing the web server to push the asynchronous message to the web browser in response to an incoming event, wherein the incoming event is an event other than a request for information from the web server (col. 6, lines 21-24. Server sends notification to online recipients. col. 8, lines 39-45. Client sends



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message to go off-line. The incoming event is an online indication of the client. The event may also be the message received from the application server.),

the web browser presents a user interface change in response to the asynchronous message (); and

the incoming event is received by a communication server (col. 5, lines 36-39. Web browser. col. 6, lines 59-61. Client displays messages.).

### **Claim Rejections - 35 USC § 103**

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claims 1-3, 6-21, 23, 25-34, 36-45, 47-55, 58, 60-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta, in view of Shaughnessy et al. US Patent #5,928,325 (Shaughnessy hereinafter).

26. As per claims 1, 16, 45, and 58, Gupta teaches substantially the invention as claimed including a method, system, for communicating comprising:

controlling a user interface presented by a web browser comprising:

causing a web server to push an asynchronous message to the web browser in response to an incoming event (col. 6, lines 21-24. Server sends notification to online recipients.), wherein the incoming event is an event other than a request for information from the web server (col. 8, lines 39-45. Client sends message to go off-line. The incoming event is an online indication of the client. col. 6, lines 54-59. Sends messages/events received from an application server to the client. The event may also be a received message),

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the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 36-39. Web browser. col. 6, lines 59-61. Client displays messages.), and

the incoming event is received by a communication server (col. 6, lines 10-12. Server updates clients that are on-line. It is inherent that a process receives the status.);

causing the web browser to provide a wait request to the web server wherein, the wait request is associated with the web browser, and the wait request is other than a request for information the web server (Fig. 2A. Client process 110 included in browser 100. col. 5, lines 49-54; col. 7, lines 44-45. Client registers the identity of the client process and receiving address. col. 6, lines 10-12. Server updates clients that are on-line.);

associating the wait request with a "asynchronous message", wherein the associating identifies web browser as a recipient of the asynchronous message (col. 6, lines 22-24; col. 8, lines 41-44, 54-56. Identify active clients and message to determine intended recipients. col. 5, lines 49-57. Register the client when the client is ready to receive message. col. 7, lines 44-45. Send stored messages when the clients next register. Therefore, the client registration is associated with the message.).

27. Gupta does not specifically teach of identifying a source of the asynchronous message. Gupta teaches of associating a wait request with a message but not specifically with the source.

28. Sahaughnessy teaches of a system for sending messages comprising: identifying a source of the asynchronous message (col. 5, lines 21-26. User-device selected rules may involve factors including the source of the message. col. 4, line 37-40. Email.); and associating registered client devices with the source (col. 5, lines 10-14, 18-22. Determine available device to send a message using user-device selected rules.).

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to identify a source of the asynchronous message and to associate a registered client with the source as taught by Sahaughnessy such that the wait request registering the client as taught

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by Gupta is associated with the source. The motivation for the suggested combination is that Shaughnessy's teachings would improve Gupta's teachings by allowing a client to receive messages on differently available client devices (col. 5, lines 60-67).

30. As per claim 19, Gupta teaches substantially the invention as claimed including a method for communication, comprising:

establishing a first connection between a web browser and a web server (col. 5, lines 45-53; col. 6, lines 59-61. Client communicates with notification server. col. 5, lines 36-39. Client comprises a web browser.);

establishing a second connection between the web server and a business process server (col. 6, lines 57-59. Notification server receives messages from an application server.);

controlling a user interface presented by the web browser comprising:

registering the web browser with the business process server (col. 5, lines 41-45; col. 6, lines 54-56. Register to receive messages.);

providing the web server with an asynchronous message to push to the web browser, the providing being performed by the business process server (col. 6, lines 54-61. Send messages/events to notification server.) and the providing being performed in response to an incoming event, wherein the incoming event is an event other than a request for information from the web browser (col. 6, lines 54-56. Detect messages/events of interest.); and

causing the web server to push the asynchronous message to the browser (col. 6, lines 54-61. Send notification message to clients.); wherein the web browser performs a user interface change in response to the asynchronous message (col. 6, lines 60-61. Client displays messages.); and

the incoming event is received by a communication server (col. 5, lines 31-35; col. 6, lines 54-56. Detection of messages/events by application server. col. 6, lines 35-39. Change in bid.);

causing the web browser to provide a wait request to the web server, wherein the wait request is associated with the web browser, and the wait request is other than a request for information from the web server (col. 5, lines 49-54. Client registers the identity of the client process and receiving address. col. 6, lines 10-12. Server updates clients that are on-line.);

associating the wait request with a "asynchronous message", wherein the associating identifies web browser as a recipient of the asynchronous message (col. 6, lines 22-24; col. 8, lines 41-44, 54-56. Identify active clients and message to determine intended recipients. col. 5, lines 49-57. Register the client when the client is ready to receive message. col. 7, lines 44-45. Send stored messages when the clients next register. Therefore, the client registration is associated with the message.).

31. Gupta does not specifically teach of identifying a source of the asynchronous message. Gupta teaches of associating a wait request with a message but not specifically with the source.

32. Sahaughnessy teaches of a system for sending messages comprising: identifying a source of the asynchronous message (col. 5, lines 21-26. User-device selected rules may involve factors including the source of the message. col. 4, line 37-40. Email.); and associating registered client devices with the source (col. 5, lines 10-14, 18-22. Determine available device to send a message using user-device selected rules.).

33. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to identify a source of the asynchronous message and to associate a registered client with the source as taught by Sahaughnessy such that the wait request registering the client as taught by Gupta is associated with the source. The motivation for the suggested combination is that Shaughnessy's teachings would improve Gupta's teachings by modifying messages to allow a client to receive messages on different available devices (col. 5, lines 60-67).

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34. As per claims 20, 33, 44, and 55, Gupta teaches substantially the invention as claimed including a method, computer program product, computer system, and a system comprising:

a processor; a memory, the memory storing instructions for executing on the processor, the instructions comprising (col. 5, lines 5-9, 12-14. Computer system. Computers.);

controlling a user interface presented by a web browser comprising:

registering the web browser as available to receive an asynchronous message, wherein the web browser is not blocked waiting for the asynchronous message (col. 5, lines 49-53; col. 7, lines 44-45.

When the client process is ready, register the client process to receive messages.); and

causing a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event is an event other than a request for information from the web server (col. 6, lines 21-24. Server sends notification to online recipients. col. 8, lines 39-45. Client sends message to go off-line. The incoming event is an online indication of the client. col. 6, lines 54-59. Sends messages/events received from an application server. The event may also be a received message.)

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 36-39. Web browser. col. 6, lines 59-61. Client displays messages.), and

the incoming event is received by a communication server (col. 6, lines 10-12. Server updates clients that are on-line. It is inherent that a process receives information regarding client status.);

causing the web browser to provide a wait request to the web server wherein, the wait request is associated with the web browser, and the wait request is other than a request for information from the web server (Fig. 2A. Client process 110 included in browser 100. col. 5, lines 49-54. Client registers the identity of the client process and receiving address. col. 6, lines 10-12. Server updates clients that are on-line.);

associating the wait request with a "asynchronous message", wherein the associating identifies web browser as a recipient of the asynchronous message (col. 6, lines 22-24; col. 8, lines 41-44, 54-56.

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Identify active clients and message to determine intended recipients. col. 5, lines 49-57. Register the client when the client is ready to receive message. col. 7, lines 44-45. Send stored messages when the clients next register. Therefore, the client registration is associated with the message.); and

a computer-readable medium for storing the controlling instructions, the registering instructions, the pushing instructions, the providing instructions, the identifying instructions, and the associating instructions. a computer-readable medium for storing the controlling instructions, the pushing instructions (col. 5, lines 5-9, 12-14. Computer system. Computers.).

35. Gupta does not specifically teach of identifying a source of the asynchronous message. Gupta teaches of associating a wait request with a message but not specifically with the source.

36. Sahaughnessy teaches of a system for sending messages comprising: identifying a source of the asynchronous message (col. 5, lines 21-26. User-device selected rules may involve factors including the source of the message. col. 4, line 37-40. Email.); and associating registered client devices with the source (col. 5, lines 10-14, 18-22. Determine available device to send a message using user-device selected rules.).

37. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to identify a source of the asynchronous message and to associate a registered client with the source as taught by Sahaughnessy such that the wait request registering the client as taught by Gupta is associated with the source. The motivation for the suggested combination is that Shaughnessy's teachings would improve Gupta's teachings by modifying messages to allow a client to receive messages on different available devices (col. 5, lines 60-67).

38. As per claim 21, Gupta teaches substantially the invention as claimed including a method for communicating, comprising:

controlling a user interface presented by a web browser comprising:

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causing the web browser to provide a wait request to a web server, the wait request being associated with the web browser (Fig. 2A. Client process 110 included in browser 100. col. 5, lines 49-54. Client registers the identity of the client process and receiving address. col. 6, lines 10-12. Server updates clients that are on-line.);

associating the wait request with a "asynchronous message", wherein the associating identifies web browser as a recipient of the asynchronous message (col. 6, lines 22-24; col. 8, lines 41-44, 54-56. Identify active clients and message to determine intended recipients. col. 5, lines 49-57. Register the client when the client is ready to receive message. col. 7, lines 44-45. Send stored messages when the clients next register. Therefore, the client registration is associated with the message.).

pushing the asynchronous message to the web browser in response to an incoming event, wherein the incoming event is an event other than a request for information from the web server (col. 6, lines 21-24. Server sends notification to online recipients. col. 8, lines 39-45. Client sends message to go off-line. The incoming event is an online indication of the client.), and

the browser presents a user interface change in response to the asynchronous message (col. 5, lines 36-39. Web browser. col. 6, lines 59-61. Client displays messages.);

the incoming event is received by a communication server (col. 6, lines 10-12. Server updates clients that are on-line. It is inherent that a process receives information regarding client status.);

causing the web browser to provide a wait request to the web server wherein, the wait request is associated with the web browser, and the wait request is other than a request for information from the web server (Fig. 2A. Client process 110 included in browser 100. col. 5, lines 49-54. Client registers the identity of the client process and receiving address. col. 6, lines 10-12. Server updates clients that are on-line. col. 7, lines 44-45. Client may re-register.);

associating the wait request with a "asynchronous message", wherein the associating identifies web browser as a recipient of the asynchronous message (col. 6, lines 22-24; col. 8, lines 41-44, 54-56.

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Identify active clients and message to determine intended recipients. col. 5, lines 49-57. Register the client when the client is ready to receive message. col. 7, lines 44-45. Send stored messages when the clients next register. Therefore, the client registration is associated with the message.).

39. Gupta does not specifically teach of identifying a source of the asynchronous message. Gupta teaches of associating a wait request with a message but not specifically with the source.

40. Sahaughnessy teaches of a system for sending messages comprising: identifying a source of the asynchronous message (col. 5, lines 21-26. User-device selected rules may involve factors including the source of the message. col. 4, line 37-40. Email.); and associating registered client devices with the source (col. 5, lines 10-14, 18-22. Determine available device to send a message using user-device selected rules.).

41. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to identify a source of the asynchronous message and to associate a registered client with the source as taught by Sahaughnessy such that the wait request registering the client as taught by Gupta is associated with the source. The motivation for the suggested combination is that Shaughnessy's teachings would improve Gupta's teachings by modifying messages to allow a client to receive messages on different available devices (col. 5, lines 60-67).

42. As per claim 23, Gupta teaches substantially the invention as claimed including a computer program product comprising:

controlling instructions to control a user interface presented by a web browser comprising:

pushing instructions to cause a web server to push an asynchronous message to the web browser in response to an incoming event (col. 6, lines 21-24. Server sends notification to online recipients.), wherein the incoming event is an event other than a request for information from the web server (col. 8,



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lines 39-45. Client sends message to go off-line. The incoming event is an online indication of the client.),

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 36-39. Web browser. col. 6, lines 59-61. Client displays messages.), and

the incoming event is received by a communication server (col. 6, lines 10-12. Server updates clients that are on-line. It is inherent that a process receives the status.);

providing instructions to cause the web browser to provide a wait request to the web server, the wait request being associated with the web browser(Fig. 2A. Client process 110 included in browser 100. col. 5, lines 49-54. Client registers the identity of the client process and receiving address. col. 6, lines 10-12. Server updates clients that are on-line.);

associating the wait request with a "asynchronous message", wherein the associating identifies web browser as a recipient of the asynchronous message (col. 6, lines 22-24; col. 8, lines 41-44, 54-56. Identify active clients and message to determine intended recipients. col. 5, lines 49-57. Register the client when the client is ready to receive message. col. 7, lines 44-45. Send stored messages when the clients next register. Therefore, the client registration is associated with the message.); and

a computer-readable medium for storing the controlling instructions, the pushing instructions, the providing instructions, the identifying instructions, and the associating instructions (col. 5, lines 5-9, 12-14. Computer system. Computers.).

43. Gupta does not specifically teach of identifying a source of the asynchronous message. Gupta teaches of associating a wait request with a message but not specifically with the source.

44. Sahaughnessy teaches of a system for sending messages comprising: identifying a source of the asynchronous message (col. 5, lines 21-26. User-device selected rules may involve factors including the source of the message. col. 4, line 37-40. Email.); and associating registered client devices with the

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source (col. 5, lines 10-14, 18-22. Determine available device to send a message using user-device selected rules.).

45. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to identify a source of the asynchronous message and to associate a registered client with the source as taught by Sahaughnessy such that the wait request registering the client as taught by Gupta is associated with the source. The motivation for the suggested combination is that Shaughnessy's teachings would improve Gupta's teachings by allowing a client to receive messages on differently available client devices (col. 5, lines 60-67).

46. As per claim 34, Gupta teaches substantially the invention as claimed including a computer system comprising:

a processor; a memory, the memory storing instructions for executing on the processor, the instructions comprising (col. 5, lines 5-9, 12-14. Computer system. Computers.):

controlling instructions to control a user interface presented by a web browser comprising:

pushing instructions to cause a web server to push an asynchronous message to the web browser in response to an incoming event (col. 6, lines 21-24. Server sends notification to online recipients. col. 6, lines 54-59. Sends messages/events received from an application server. The event may also be the received message.), wherein the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 36-39. Web browser. col. 6, lines 59-61. Client displays messages.), and

the incoming event is received by a communication server (col. 6, lines 10-12. Server updates clients that are on-line. It is inherent that a process receives the status.);

providing instructions to cause the web browser to provide a wait request to the web server, the wait request being associated with the web browser(Fig. 2A. Client process 110 included in browser 100.

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col. 5, lines 49-54. Client registers the identity of the client process and receiving address. col. 6, lines 10-12. Server updates clients that are on-line.);

associating the wait request with a "asynchronous message", wherein the associating identifies web browser as a recipient of the asynchronous message (col. 6, lines 22-24; col. 8, lines 41-44, 54-56. Identify active clients and message to determine intended recipients. col. 5, lines 49-57. Register the client when the client is ready to receive message. col. 7, lines 44-45. Send stored messages when the clients next register. Therefore, the client registration is associated with the message.); and

47. Gupta does not specifically teach of identifying a source of the asynchronous message. Gupta teaches of associating a wait request with a message but not specifically with the source.

48. Sahaughnessy teaches of a system for sending messages comprising: identifying a source of the asynchronous message (col. 5, lines 21-26. User-device selected rules may involve factors including the source of the message. col. 4, line 37-40. Email.); and associating registered client devices with the source (col. 5, lines 10-14, 18-22. Determine available device to send a message using user-device selected rules.).

49. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to identify a source of the asynchronous message and to associate a registered client with the source as taught by Sahaughnessy such that the wait request registering the client as taught by Gupta is associated with the source. The motivation for the suggested combination is that Shaughnessy's teachings would improve Gupta's teachings by allowing a client to receive messages on differently available client devices (col. 5, lines 60-67).

50. As per claim 2, Gupta teaches the method of claim 1 further comprising: generating the asynchronous message (col. 6, lines 59-61; col. 8, lines 37-40. Send messages. It is inherent that the messages are generated in order to send the message to the client.).

51. As per claim 3, Gupta teaches the method of claim 1 further comprising: preparing to receive the asynchronous message (col. 6, lines 59-61. Client receives and displays messages. col. 7, lines 10-13. Server opens connection with client.).

52. As per claim 6, Gupta teaches the invention comprising:  
generating instructions to generate the asynchronous message, the asynchronous message identifying the wait request, wherein the identifying identifies the web browser as a recipient of the message (col. 6, lines 21-24, 54-61. Generate event of interest for the client. Message is married to the client's receiving address.); and

message providing instructions to provide the asynchronous message to the web server (col. 8, lines 31-40. Server informed of event.).

53. As per claim 7, Gupta teaches the method of claim 6, wherein causing the web browser to provide the wait request comprises: downloading requesting instructions to the web browser, wherein downloading causes the web browser to execute the requesting instructions (col. 5, lines 60-col. 6, lines 9. Download client process and invoke client process automatically or manually.).

54. As per claims 8, 26, 37, 48, and 61, Gupta teaches the invention comprising:  
storing instructions to store a reference to a callback function with information from the wait request (col. 5, lines 49-56; col. 8, lines 18-24. Registers receiving identifier. Col 8, lines 15-17. Enroll to receive messages.); and

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using instructions to use the reference to call the callback function when the message is provided to the web server, wherein the callback function pushes the message (col. 8, lines 34-40. Sends events/messages received from application server using receiving identifier of client.).

55. As per claims 9, 27, 38, 49, and 62, Gupta teaches the invention comprising: context providing instructions to provide the callback function with context information, the context information identifying the web browser (col. 5, lines 49-56; col. 7, lines 44-45; col. 8, lines 18-24. Registers receiving identifier. col. 8, lines 15-17. Enroll to receive messages.).

56. As per claims 10, 28, 39, 50, and 63, Gupta teaches the invention comprising:

assigning instructions to assign the wait request to a connection between the web server and a business process server (col. 6, lines 12-24. Notification server correlates registered client with messages received from application server. col. 8, lines 34-37. Determine recipients for notification when provided with messages/events.); and

listening instructions to listen to the connection for the message (col. 6, lines 54-56. Inform notification server of messages/events from application server.).

57. As per claim 11, Gupta teaches the invention comprising:

assigning instructions to assign the wait request to a session between the web server and a business process server, the session being associated with a connection (col. 6, lines 12-24. Notification server correlates registered client identity with messages received from application server. col. 8, lines 34-37. Determine recipients for notification when provided with messages/events.); and

listening instructions to listen to the connection for the message (col. 6, lines 54-56. Inform notification server of messages/events from application server.).

58. As per claims 12, 29, 40, 51, and 64, Gupta teaches the invention comprising: calling instructions to call a callback function associated with the web browser when the message is received, wherein the callback function pushes the message (col. 5, lines 49-56; col. 7, lines 44-45; col. 8, lines 18-24.

Registers identifier of client process. col. 8, lines 34-40. Sends events/messages received from application server using receiving identifier of client.).

59. As per claims 13, 30, 41, 52, and 65, Gupta teaches the invention comprising:

reference storing instructions to store a reference to the callback function (col. 5, lines 41-56; Col 8, lines 18-24. Registers receiving identifier and list of desired messages. col. 8, lines 15-17. Enroll to receive messages.) and

reference using instructions to use the reference for calling the callback function (col. 6, lines 54-56. Identify events/messages of interest to clients. col. 8, lines 34-40. Send events/messages received from application server using receiving identifier of client.);

60. As per claims 14, 31, 42, 53, and 66, Gupta teaches the invention comprising:

context storing instruction to store a second reference to context information, the context information identifying the web browser (col. 5, lines 54-56. Identifier could be address and port with the protocol.) and

context using instructions to use the second reference for providing the context information to the callback function (col. 8, lines 34-40. Send events/messages received from application server using receiving identifier of client.).

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61. As per claims 15, 18, 32, 43, 54, and 67, Gupta teaches the invention wherein the change in the user interface comprises at least one of a group consisting of the following: causing a first user interface object to move to visually capture a user's attention; causing a second user interface object to issue a sound to capture the user's attention; presenting a screen pop of data; and bringing a web browser window to a front of screen (col. 6, lines 59-61. On-line client displays the messages to the end user.).

62. As per claim 17, Gupta teaches the method of claim 16, wherein the message includes an action instruction to cause the web browser to perform the action (col. 6, lines 59-61. Display message.).

63. As per claims 25, 36, 47, and 60, Gupta teaches the invention comprising:

requesting providing instructions to cause the web browser to provide a wait request to the web server, the wait request being associated with the web browser (Fig. 2A. Client process 110 included in browser 100. col. 5, lines 49-54; col. 7, lines 44-45. Client registers the identity of the client process and receiving address.);

generating instructions to generate the asynchronous message, the asynchronous message identifying the wait request, wherein the identifying identifies the web browser as a recipient of the message (col. 6, lines 21-24, 54-61. Generate message/event of interest for the client. Message is married to the client's receiving address.); and

message providing instructions to provide the asynchronous message to the web server (col. 8, lines 31-34. Notification generated for client process and sent.).

64. As per claim 68, Gupta teaches the method of claim 1 further comprising:

opening a persistent hypertext transfer protocol (HTTP) connection between the web browser and the web server when a user logs in (col. 7, lines 44-45. Deliver messages when the client registers.); and

closing the persistent HTTP connection between the web browser and the web server in response to the web server pushing the asynchronous message to the web browser (col. 7, lines 10-14. Closes the connection after sending the notification. It is inherent that the connection was open to send the notification.).

### **Conclusion**

65. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

66. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Thursday 8AM to 5PM and every other Friday.

67. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

68. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/J. J./

Examiner, Art Unit 2154



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/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2154